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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
11/616,072	12/26/2006	John Joseph Gatto	RPS920060119US1	1948
38424	7590	04/12/2017		
DUKE W. YEE YEE & ASSOCIATES, P.C. P.O. BOX 802333 DALLAS, TX 75380			EXAMINER CHAMPAGNE, LUNA	
			ART UNIT	PAPER NUMBER
			3627	
			NOTIFICATION DATE	DELIVERY MODE
			04/12/2017	ELECTRONIC

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UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE PATENT TRIAL AND APPEAL BOARD

Ex parte JOHN JOSEPH GATTO and TERRY J. NISBET

Appeal 2015-002157¹
Application 11/616,072²
Technology Center 3600

Before BIBHU R. MOHANTY, NINA L. MEDLOCK, and
PHILIP J. HOFFMANN, *Administrative Patent Judges*.

MEDLOCK, *Administrative Patent Judge*.

DECISION ON APPEAL

STATEMENT OF THE CASE

Appellants appeal under 35 U.S.C. § 134(a) from the Examiner's final rejection of claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

We REVERSE.

¹ Our decision references Appellants' Appeal Brief ("App. Br.," filed July 1, 2014) and Reply Brief ("Reply Br.," filed November 17, 2014), and the Examiner's Answer ("Ans.," mailed September 17, 2014) and Final Office Action ("Final Act.," mailed April 3, 2014).

² Appellants identify Toshiba Global Commerce Solutions Holdings Corporation of Tokyo, Japan, as the real party in interest. App. Br. 2.

CLAIMED INVENTION

Appellants' claimed invention "generally pertains to a method for validating a product or other object, wherein a sensor device such as a vertical array of sensors are used to determine product length," and, more particularly, "to a method of the above type wherein products are successively scanned, and then moved through the sensor array by means of a weighing conveyer," and, even more particularly, "to a method of the above type that is useful in regulating or controlling transaction speed in a self-checkout conveyer system" (Spec. ¶ 1).

Claims 1, 11, and 16 are the independent claims on appeal. Claim 1, reproduced below, is illustrative of the claimed subject matter:

1. A method for validating a first specified object placed on one weighing conveyer that has a conveyer direction and speed of movement, wherein the conveyer is disposed to move successive objects to an off-load site adjacent to a farther end of the conveyer, said method comprising the steps of:

scanning each object to identify reference data associated with a respective object scanned, wherein a second object immediately precedes the first specified object in the object succession, and the first specified object is placed on the conveyer when the preceding second object is also on the conveyer;

measuring a length and a vertical height of said preceding second object along said conveyer direction of movement by moving said preceding second object with respect to a single sensor device that is located proximate to said conveyer, wherein said single sensor device forms a gate comprising vertical opposing arrays through which an object conveyed must pass, and wherein said single sensor device is spaced a predetermined distance from said farther end of the conveyer;

selectively processing at least said measured length of said preceding second object and said conveyer speed, to compute a time when it has been determined that said preceding second object is transferred from said conveyer to said off-load site;

acquiring first weight data provided by said weighing conveyer, representing a total weight on said weighing conveyer just before said computed time when there are other objects on said weighing conveyer simultaneously with said second specified object, and second weight data representing a total weight on said weighing conveyer just after said computed time when there are other objects on said weighing conveyer simultaneously without said second specified object, wherein a difference between the first weight data and the second weight data is the weight of said second specified object;

determining whether the weight of said second specified object matches corresponding reference data associated with the respective object; and

responsive to a determination the weight of said second specified object matches corresponding reference data associated with the respective object, validating said second specified object.

REJECTIONS

Claims 1, 10, 11, and 16 are rejected under 35 U.S.C. § 103(a) as unpatentable over Komori et al. (US 5,990,422, iss. Nov. 23, 1999, hereinafter “Komori”), Sellers (US 3,945,448, iss. Mar. 23, 1976), and Ikeda et al. (US 5,375,680, iss. Dec. 27, 1994) (hereinafter “Ikeda”).

Claims 2, 12, and 17 are rejected under 35 U.S.C. § 103(a) as unpatentable over Komori, Sellers, Ikeda, and Criscione II et al. (US 2005/0072603 A1, pub. Apr. 7, 2005) (hereinafter “Criscione”).

Claims 3, 4, 9, 13, and 18 are rejected under 35 U.S.C. § 103(a) as unpatentable over Komori, Sellers, Ikeda, Criscione, and Kohashi et al. (US 5,635,679, iss. June 3, 1997) (hereinafter “Kohashi”).

Claims 6, 7, 19, and 20 are rejected under 35 U.S.C. § 103(a) as unpatentable over Komori, Sellers, Ikeda, and Ramsden et al. (US 6,105,014, iss. Aug. 15, 2000) (hereinafter “Ramsden”).

Claim 5 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Komori, Sellers, Ikeda, Kohashi, and Weir (US 3,716,697, iss. Feb. 13, 1973).

Claims 8 and 15 are rejected under 35 U.S.C. § 103(a) as unpatentable over Komori, Sellers, Ikeda, Ramsden, and Suehara et al. (US 5,427,224, iss. June 27, 1995) (hereinafter “Suehara”).

Claim 14 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Komori, Sellers, Ikeda, and Weir.

ANALYSIS

Independent Claim 1

We are persuaded by Appellants’ argument that the Examiner erred in rejecting independent claim 1 under 35 U.S.C. § 103(a) because the combination of Komori and Ikeda, on which the Examiner relies, fails to disclose or suggest

measuring a length and a vertical height of said preceding second object along said conveyer direction of movement by moving said preceding second object with respect to a single sensor device that is located proximate to said conveyer, wherein said single sensor device forms a gate comprising vertical opposing arrays through which an object conveyed must pass, and wherein said single sensor device is spaced a predetermined distance from said farther end of the conveyor[,] as recited in claim 1 (App. Br. 22–24).

Komori is directed to an apparatus for measuring weights of articles successively transported on a conveyer, including first and second weighing

conveyers 13 and 14 having load cells 23 and 24 to produce weight signals, and photo-sensors 20, 21, and 22 arranged at inlets and outlets of the weighing conveyors for detecting passage of the articles to produce article detection signals (Komori, Abstract). Komori discloses that the length of an article is measured by counting output pulses from a rotary encoder 15 to determine the difference between the length of the article, “L,” and a reference length, “L1” (by which photo-sensors 20 and 21 are separated from each other); the length L of the article is then calculated as the sum of the reference length and the difference (Komori, Abstract; *see also id.* at col. 7, l. 36 – col. 8, l. 23).

Ikeda is directed to a check-out device installed, for example, as a self-service check-out counter at a supermarket (Ikeda, col. 4, ll. 7–8), and discloses, with reference to Figure 1, that the device comprises, *inter alia*, an input section 10 and an entry section 20 (*id.*, col. 4, ll. 11–13). Input section 10 contains a stationary sensor 11 for optically scanning an article, which a customer wishes to purchase, to read an article code recorded on the object generally in a bar-code form (*id.*, col. 4, ll. 16–20). Entry section 20 contains an entry conveyor 21 for transporting a scanned article; an electronic weighing device 22 for weighing the article; and an article sensor 23 for optically sensing the passage of the article through an exit of entry conveyor 21 (*id.*, col. 4, ll. 34–41). Electronic weighing device 22 measures the weight of the article, and supplies the measured weight to an electronic cash register, which uses the article code and measured weight data to confirm that the article whose article code was read by the scanner is, in fact, the article on the entry conveyor (*id.*, col. 3, ll. 5–21).

In rejecting claim 1 under 35 U.S.C. § 103(a), the Examiner cites Komori as disclosing the measurement of a length and a vertical height of a moving article (Final Act. 2–3 (citing Komori, col. 3, ll. 13–16; col. 7, ll. 12–30)). However, the Examiner ostensibly acknowledges that neither Komori nor Sellers explicitly discloses that the measurement is accomplished “by moving said preceding second object with respect to a single sensor device that is located proximate to said conveyer” or that “said single sensor device forms a gate comprising vertical opposing arrays through which an object conveyed must pass, and wherein said single sensor device is spaced a predetermined distance from said farther end of the conveyer,” as called for in claim 1.

The Examiner cites Ikeda to cure the deficiency of Komori (*id.* at 4 (citing Ikeda, col. 4, ll. 44–51)). But the Examiner does not adequately explain why, and we fail to see why, a person of ordinary skill in the art would have had an apparent reason to modify Komori, which discloses measuring length using a rotary encoder in combination with a reference length by which two photo-sensors are separated, to include a single sensor, as disclosed in Ikeda, which only optically senses the passage of the article through an exit of the entry conveyor 21 so that another article can be processed, and fails to measure a length and a vertical height of an object along the conveyor direction of movement, as called for in claim 1.³

³ Ikeda discloses that “the processing unit inhibits a next article code from being input at least during a period from when the article code has been input until the article put on the conveyor section is removed” (Ikeda, col. 3, ll. 25–29). In this way, Ikeda avoids two or more articles being placed on the conveyor section and weighted simultaneously (*id.*, col. 3, ll. 30–33).

In view of the foregoing, we do not sustain the Examiner's rejection of independent claim 1 under 35 U.S.C. § 103(a).

Independent Claims 11 and 16

Independent claims 11 and 16 include language substantially similar to the language of independent claim 1, and stand rejected based on the same rationale applied with respect to claim 1 (Final Act. 2–5). Therefore, we do not sustain the Examiner's rejection of claims 11 and 16 under 35 U.S.C. § 103(a) for the same reasons set forth above with respect to claim 1.

Dependent Claims 2–10, 12–15, and 17–20

Each of claims 2–10, 12–15, and 17–20 depends, directly or indirectly, from one of independent claims 1, 11, and 16. The Examiner's rejections of these dependent claims do not cure the deficiency in the Examiner's rejection of independent claims 1, 11, and 16. Therefore, we do not sustain the Examiner's rejections of claims 2–10, 12–15, and 17–20 under 35 U.S.C. § 103(a) for the same reasons set forth above with respect to the independent claims.

DECISION

The Examiner's rejections of claims 1–20 under 35 U.S. C. § 103(a) are reversed.

REVERSED